**Chapter 10 Inserts**

**Insert 597-A**

**Using auto To Define a string Object**

Recall from Chapter 2 that with C++ 11 and later you can use the auto key word to define a variable, as long as you provide an initialization value. When using the auto key word, the compiler determines the data type of the variable from the initialization value. Here is an example of using the auto key word to define a variable with a string literal as the initialization value:

auto str = "Hello World";

The string literal "Hello World" is stored in memory as a C-string, and the compiler will determine its data type to be either const char \* (pointer to const char), or const char[*n*] (where *n* is the number of characters in the string, plus one for the null terminator). So, the data type of the str variable will be one of these.

If you want to use the auto key word to define a string object, you can append the s suffix to the string literal, as shown here:

auto str = "Hello World"s;

The s suffix causes the string "Hello World" to be stored in memory as a string object. As a result, the data type of str will be string.